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KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
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FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
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ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: SUPPRESSING PLANT PATHOGENS AND PESTS WITH APPLIED OR INDUCED AUXINS

(57) Abstract: The present invention is directed to methods for inhibiting the growth of disease organisms, particularly fungi and bacteria, on plant tissues. The present invention is also directed to methods for inhibiting the infestation of plants by insects and larva, particularly sucking and chewing insects. These methods are achieved by applying an auxin or a plant growth regulator (PGR) which will effect the level of auxin in the plant tissue to the seeds or tubers of the plant prior to planting or to the roots, foliage, flowers or fruit of the plant after planting. The auxin or PGR is applied in an amount effective to inhibit growth of the disease organisms or insects, but in an amount insufficient to negatively effect growth of the plant tissues. The auxin may be applied as a natural auxin, synthetic auxin, auxin metabolite, auxin precursor, auxin derivative or a mixture thereof. The presently preferred auxin is indole-3-acetic acid (IAA). The auxin or PGR may be applied to the seeds, tubers or plant tissues. Seeds or tubers may be sprayed with or immersed in an aqueous solution containing the auxin or PGR. Conventional spraying and drip irrigation systems may be used to apply an aqueous solution containing an auxin or PGR to plant tissues. The auxin or PGR may also be applied to the plant tissues as a powder or may be encapsulated within a biologically compatible material to provide slow release to the roots of the plant. The plant tissues may be dusted with a powder, including the auxin or PGR. The encapsulated auxin may be placed in the root zone for uptake of the auxin or PGR by the roots.



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# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US04/26700

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 31/08, 37/10, 43/38, 57/14

US CL : 504/101, 194, 284, 317, 336, 354; 514/130, 266, 419, 450, 543, 557, 570, 573, 617, 732, 762

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 504/101, 194, 284, 317, 336, 354; 514/130, 266, 419, 450, 543, 557, 570, 573, 617, 732, 762

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
none

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 1262037A (WEI) 9 August 2000. See entire translation.	1-70
Y	US 4,675,327 A (FREDRICK) 23 June 1987. See columns 1-3 and Example VI.	1-70

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

Special categories of cited documents:	
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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## INTERNATIONAL SEARCH REPORT

International application No. .  
PCT/US04/26740

Continuation of B. FIELDS SEARCHED Item 3:

WEST: plant hormon-, ethylene, cytokinin, kinetin, gibberellin (+ variants), abscissic, brassinosteroid-, jasmon-, salicyl-, thrip-,  
thysanopter-, fusarium, rhizoctonia, seed with layer-/coat-/shell-, 2,4-D (+variants), IAA (+variants),